

WHAT IS CLAIMED IS:

1. An adjustable device deployment system, for implanting an implantable device within a tubular structure in the body comprising:
  - an implantable device, said device being movable between a reduced cross section and an enlarged cross section;
  - a sheath having a proximal end and a distal end and a lumen adapted to receive the implantable device;
  - a deployment catheter adapted to extend through the sheath having an elongate flexible body with a proximal end and a distal end; and
  - a deployment line adapted to extend through the deployment catheter releasably attached to the implantable device.
2. An adjustable device deployment system as in Claim 1, wherein the implantable device comprises an expandable frame.
3. An adjustable device deployment system as in Claim 2, wherein the implantable device self-expands to have an enlarged cross section.
4. An adjustable device deployment system as in Claim 2, wherein the frame comprises at least two spokes.
5. An adjustable device deployment system as in Claim 4, wherein the frame comprises at least six spokes.
6. An adjustable device deployment system as in Claim 4, wherein each spoke is movable from an axial orientation when the implantable device is in the reduced cross section to an inclined orientation when the implantable device is in the enlarged cross section.
7. An adjustable device deployment system as in Claim 6, wherein each spoke comprises a proximal section, a distal section, and a bend in between the proximal and distal sections when the implantable device is in the enlarged cross section.
8. An adjustable device deployment system as in Claim 6, wherein the spokes are cut from a tube.
9. An adjustable device deployment system as in Claim 1, further comprising a plurality of tissue attachment elements on the implantable device.